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EXAMINER
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ART UNIT	PAPER NUMBER
2184	

DATE MAILED: 12/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 November 2002_ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-4_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-4_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _28 December 1999_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted

prior art (hereinafter "AAPA").

AAPA discloses an existing method for processing a packet received from a physical

layer by a MAC layer of an Ethernet to be transmitted to a switch that comprises steps of storing

an incoming packet in a memory for a subsequent retrieval (page 2, lines 5-6) (the MAC layer

performing an error processing operation implies that data must be stored in memory); detecting

error while receiving the packet from a physical layer; upon failure to detect the error,

transmitting the received packet to the switch; and upon detection of the error, stopping the

transmission of the received packet to the switch and the storage of the incoming packet (page 2,

lines 15-16). For an error to occur while receiving a packet implies that something is detecting

error while receiving the packet. Discarding the error packet when an error occurs, while

receiving the packet implies the stopping of the storage and transmission of a packet upon

detection of an error and transmitting the packet to the switch if the packet is not detected and

therefore, discarded.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 2, 3 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by AAPA in

view of Lo (5,493,562).

As in claim 2, AAPA discloses an existing method for processing a packet received from

a physical layer by a MAC layer of an Ethernet, wherein the received packet is stored in a

memory for an eventual transmission to a switch that comprises the steps of receiving a packet

from the physical layer and storing the received packet in memory (page 2, lines 5-6) (the MAC

layer performing an error processing operation implies that data must be stored in memory),

detecting for error while receiving the packet; upon detection of the error, stopping the storage

of the received packet in memory and the transmission of the received packet to the switch

(page 2, lines 15-16). For an error to occur while receiving a packet implies that something is

detecting for error while receiving the packet. Discarding the error packet when an error occurs

while receiving the packet implies the stopping of the storage and transmission of a packet upon

detection of an error and transmitting the packet to the switch if the packet is not detected and

therefore, discarded. However, AAPA does not specifically disclose transmitting signals,

indicating an occurrence of the error or an end of the received packet, to the switch. Lo discloses

a method for processing packets that transmits both an error signal and an end-of-packet signal to

a switch (column 4, lines 24-30).

It would have been obvious to a person skilled in the art at the time the invention was

made to include transmitting error and end-of-packet signals into the packet processing method,

as was taught by AAPA above. This would have been obvious because Lo clearly teaches that

gathering error statistics (by sending error and end-of packet signals to the switch) in a computer

network is useful in network management because it enhances the user's ability to locate

problems in the network (column 1, lines 14-17). A person skilled in the art would have been led

to continuously detect packet errors while keeping packet error statistics in order to optimize a

computer network.

Regarding claim 3, neither AAPA nor Lo specifically disclose the step of preparing to

receive a next packet from the physical layer after receiving the error packet. However, it would

have been obvious to a person skilled in the art at the time the invention was made to include this

step in the packet processing method. This would have been obvious because it is well known

that the Ethernet constantly processes packets. A person skilled in the art would have understood

that after receiving an error packet, the MAC layer must prepare to receive a next packet.

Regarding claim 4, AAPA discloses an inherent memory mentioned above. However,

AAPA does not specifically disclose a FIFO memory. It would have been obvious to a person

skilled in the art at the time the invention was made to use a FIFO memory. This would have

been obvious because FIFO memories are commonly used in the Ethernet.

Response to Arguments

5.   Applicant's arguments filed November 20, 2002 have been fully considered but they are

not persuasive.

It is respectfully submitted that the features recited in claims 1-4 are taught by APAA

alone or in combination with Lo. The feature "...storing an incoming packet in a memory for a

subsequent retrieval; detecting error while receiving the packet from the physical layer; upon

failure to detect the error, transmitting the received packet to the switch and upon detection of

the error, stopping the transmission of the received packet to the switch and the storage of the

incoming packet" is implied by AAPA on page 2, lines 15-16, with respect to the processing of a

packet not exceeding 64 bytes. The phrase on page 2, lines 15-16, "when an error occurs in the

packet... while receiving the packet," is interpreted as having something detecting for error, as

well as storing the packet, while the packet is being received. The phrase, on line 16, "...the

MAC layer will discard the error packet," (when an error occurs) is interpreted as getting rid of

the packet and therefore stopping transmission upon detection of error. This phrase also implies

that the packet will be sent to the next phase, the switch, if an error is not discarded due to failure

of detection.

These interpretations are also true for the similar features recited in Claim 2.

In regards to page 7, lines 6-14 of the specification wherein the controller stops transmitting the received packet to the switch engine interface and prevents the received packet from being stored in the memory is suggested by AAPA, page 2, lines 15-16 for the same reasoning as mentioned above with respect to stopping the transmission and storage.

AAPA discloses that in a packet not exceeding 64 bytes, the packet is discarded if an error is detected while the packet is being received. If the error is discarded *while* the packet is being received, the entire packet was not received at the time of disposal of the packet. Therefore, overhead is not increased.

Therefore, the examiner respectfully submits that the recited "... storing an incoming packet in a memory for a subsequent retrieval; detecting error while receiving the packet from the physical layer; upon failure to detect the error, transmitting the received packet to the switch; and, upon detection of the error, stopping the transmission of the received packet to the switch and the storage of the incoming packet," is anticipated by AAPA for the reasons mentioned above.

Claim 2 contains a similar feature as in Claim 1, thus considered unpatentable for the same reasons mentioned above.

In view of the above-described distinctions, it is respectfully submitted that the invention of Claims 1-4 as anticipated or made obvious by AAPA alone or in combination with Lo. Therefore, withdrawal of this ground of rejection is not granted.

Although claims 3 and 4 are dependent from the independent claims discussed above, they are believed to be made obvious by AAPA in combination with Lo for the reasons mentioned above.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne L Damiano whose telephone number is (703) 305-8010. The examiner can normally be reached on M-F 8:00AM-5:30PM, second Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9731. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Anne L Damiano
Examiner
Art Unit 2184

ALD
December 17, 2002

SCOTT BADERMAN
PRIMARY EXAMINER